PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re application of	Docket No: Q76440
Lieven TRAPPENIERS, et al.	
Application No.: 10/616,980	Group Art Unit: 2155
Confirmation No.: 2865	Examiner: Shawki Saif ISMAIL
Filed: July 11, 2003	

For: METHOD, COMPUTER SOFTWARE PRODUCTS, CLIENT TERMINAL, NETWORK ELEMENT AND NETWORK FOR EFFICIENT USE OF NETWORK RESOURCES BY JUST-IN-TIME MODULATION OF QUALITY OF SERVICE BASED ON SERVICE USAGE AND USER BEHAVIOR

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

MAIL STOP APPEAL BRIEF - PATENTS
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In accordance with the provisions of 37 C.F.R. § 41.37, Appellant submits the following:

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I. REAL PARTY IN INTEREST

The real party in interest is ALCATEL, by virtue of an assignment executed by joint inventors Lieven TRAPPENIERS on August 7, 2002, and Marc GODON on August 19, 2002, filed at the U.S. Patent and Trademark Office on July 11, 2003, and recorded by the Assignment Branch of the U.S. Patent and Trademark Office on July 11, 2003 (at Reel 014273, Frame 0032).

II. RELATED APPEALS AND INTERFERENCES

Upon information and belief, there are no other prior or pending appeals, interferences or judicial proceedings known to Appellant's representative or the Assignee that may be related to, be directly affected by, or have a bearing on the Board's decision on Appeal.

III. STATUS OF CLAIMS

Claims 1-12 are all of the pending claims in the present application.

Claims 1-12 stand rejected under 35 U.S.C. § 102(b) as allegedly being unpatentable over Spell et al. (U.S. Patent No. 6,208,640).

All of the claims pending in the present application are set forth in their entirety in the Claims Appendix below.

IV. STATUS OF AMENDMENTS

Claims 1-12 have not been amended subsequent to the Final Office Action of July 2, 2007. The claims, thus, stand as presented before the Final Office Action of July 2, 2007.

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

The present invention relates to modulation of quality of service (QoS) in access networks. More specifically, it relates to a method for efficient use of network resources by just-in-time modulation of quality of service based on real-time service-usage and user-behavior.

The concise description of the claimed subject matter of the present invention is set forth below with regard to independent claims 1 and 28. The following discussion includes citations to various portions of the present application in order to aid in an understanding of the invention by reference to certain exemplary embodiments. These citations, unless otherwise indicated, are intended only to point out supporting exemplary embodiments and are not to be construed as limiting the scope of the claims.

For convenience, citations are made to the specification as published on November 24, 2005 in U.S. Patent Application Publication No. 2005/0262228 A1 ("Specification").

A. Independent claim 1

Independent claim 1 is directed to "[a] method for allocating network resources by just-in-time modulation of quality of service (QoS)." (E.g., Specification at ¶¶ [0023]-[0028], [0036]-[0041]; Claim 1.)

The method comprises "receiving a user profile from a client terminal, said user profile comprising aggregated user behavior information recorded at said client terminal;" (e.g., Specification at Figs. 3 and 5; ¶¶ [0029], [0037]; Claim 1) "receiving QoS demands from said client terminal, said QoS demands determined based on said user profile;" (e.g., Specification at ¶¶ [0028], [0029], [0038]; Claim 1) and "allocating network resources to said client terminal based on said QoS demands" (e.g., Specification at ¶¶ [0041]-[0044]; [0047]; Claim 1).

B. Independent claim 6

Independent claim 6 is directed to "[a] telecommunication network" which comprises "a client terminal and a scheduler server," (e.g., Specification at ¶ [0029]; Fig. 3) "said client terminal comprising" the means plus function element "communication means for requiring and using network resources and quality of service (QoS) demands," (e.g., Specification at ¶¶ [0029], [0033]; Fig. 3, "Network-element-QoS-module," "client-QoS-module;" Abstract) "said scheduler server comprising" the means plus function element "scheduling or dispatching means allocating network resources based on QoS demands" (e.g., Specification at ¶¶ [0029], [0033]; Fig. 3, "scheduler-QoS-module;" Abstract).

Claim 6 also recites that "the client terminal further comprises" the means plus function element "acquiring means for recording events of a user as user-behavior" (e.g., Specification at Fig. 3, "client-profiling-module"; ¶¶ [0029], [0037]; Abstract; Claim 6) and means plus function element "aggregation means for aggregating user-behavior in a QoS user profile," (id.) as well as reciting that "the communication means comprises" the means plus function element "demanding means for demanding predicted quality of service (QoS) demands based on service-usage and said user-behavior" (e.g., Specification at Fig. 3, "client-QoS-module;" ¶¶ [0029], [0037]; Abstract; Claim 6).

Finally, claim 6 recites that "said scheduling or dispatching means comprises" the means plus function element "coordinating means for coordinating concurrent QoS demands of a manifold of users" (e.g., Specification at Fig. 3, "scheduler-QoS-module," "scheduler-profiling-module;" ¶¶ [0029], [0033]-[0035]; Abstract; Claim 6) and the means plus function element "evaluation and balancing means for evaluating QoS demands and balancing QoS grants based

on QoS user profiles comprising aggregated service-usage and user-behavior received from a client terminal" (id.).

C. Independent claim 7

Independent claim 7 is directed to "[a] client terminal" which comprises the means plus function element "communication means for requiring and using network resources and quality of service (QoS) demands," (e.g., Specification at ¶¶ [0030], [0033]; Fig. 3, "Network-element-QoS-module," "client-QoS-module;" Abstract).

Claim 7 also recites that "the client terminal further comprises" the means plus function element "acquiring means for recording events of a user as user-behavior," (e.g., Specification at Fig. 3, "client-profiling-module"; ¶¶ [0030], [0037]; Abstract; Claim 7) and the means plus function element "aggregation means for aggregating user-behavior in a QoS user profile" (id.).

Finally, claim 7 recites that "the communication means comprises" the means plus function element "demanding means for demanding predicted QoS demands based on service-usage and said user-behavior" (e.g., Specification at Fig. 3, "client-QoS-module;" ¶¶ [0030], [0037]; Abstract; Claim 7).

D. Independent claim 9

Independent claim 9 is directed to "[a] scheduler server" which comprises the means plus function element "scheduling or dispatching means for allocating network resources based on QoS demands," (e.g., Specification at ¶¶ [0031], [0033]; Fig. 3, "scheduler-QoS-module;" Abstract).

Claim 9 further recites that "said scheduling or dispatching means comprises" the means plus function element "coordinating means for coordinating concurrent QoS demands of a manifold of users," (e.g., Specification at Fig. 3, "scheduler-QoS-module," "scheduler-profiling-

module;" ¶¶ [0031], [0033]-[0035]; Abstract; Claim 9) and the means plus function element "evaluation and balancing means for evaluating QoS demands and balancing QoS grants based on QoS user profiles comprising aggregated service-usage and user-behavior received from a client terminal" (id.).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

There is only one issue for appeal. The single issue is whether claims 1-12 are improperly rejected under 35 U.S.C. § 102(b) as allegedly being unpatentable over U.S. Patent No. 6,208,640 to Spell et al.

For the purposes of this appeal, independent claims 1, 4, 5, and 6, and the claims dependent thereon, stand together.

VII. ARGUMENT

Claims 1-12 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 6,208,640 to Spell et al. ("Spell"). Appellant traverses this rejection for at least the following reasons.

Claim 1 requires "receiving a user profile from a client terminal, said user profile comprising aggregated user behavior information recorded at said client terminal." (emphasis added.) The Examiner alleges that Spell teaches this element of claim 1, citing col. 10, lines 7-31 of Spell.

The cited portion of Spell, however, states the following:

> An administration component 516 can be provided to offer an end user a degree of control over his or her own ISDN usage . . . . A user may, for example, wish to indicate a particular balance between costs and level of service, or may wish to specify that, for example, e-mail messages are to receive top priority regardless of cost.

(Spell at col. 10, lines 7-31.) The quotation above merely appears to teach allowing a user to indicate manual preferences or settings, and clearly does not teach that a user profile could comprise "aggregated user behavior information recorded at said client terminal." This portion of Spell fails to describe recording or aggregating user behavior information, instead describing specific preferences which a user may separately indicate, for example, for e-mail or other applications. Such preferences or settings are not aggregated, and are not "user behavior information," as required by claim 1.

Claim 1 further requires "receiving QoS demands from said client terminal, said QoS demands determined based on said user profile." Since Spell fails to teach "said user profile" as described above, Spell also fails to teach this element of claim 1.

In the Advisory Action issued in response to Appellant's Response of November 2, 2007, received by Appellant via facsimile on November 29, 2007, the Examiner appears to argue that the Spell reference does teach "aggregated user behavior information" because it allegedly teaches considering actual usage information and user input. Although Spell does appear to receive user preference information from the client terminal, it still does not teach that "user behavior information" is "recorded at said client terminal," as required by claim 1, for example. (emphasis added.)

Recorded user behavior information is clearly distinguishable from explicit preferences chosen by a user. Furthermore, throughout the present application, and in claim 2, for example, "user preferences" are clearly distinguished from user behavior information; these would unquestionably be understood by one of ordinary skill in the art as substantially different types of information, not only in terms of how they are obtained, but also in terms of what determinations may be made based on the information. For example, although user preferences are by nature generally limited to the preferences a user explicitly indicates, recorded user behavior information does not necessarily require explicit indication by a user, and therefore is likely to much more accurately describe a user's behavior.

Thus, Spell fails to teach each and every element of claim 1, and therefore fails to anticipate claim 1. Accordingly, Appellant respectfully requests that the rejection of claim 1 and its dependent claims 2-5 and 10-12 be withdrawn.

Independent claims 6, 7, and 9 recite features similar to those of claim 1. Appellant submits, that these claims are, therefore, also patentable at least for reasons analogous to those presented above with regard to claim 1. Accordingly, Appellant respectfully requests that the rejection of independent claims 6, 7, and 9, and dependent claim 8 be withdrawn.

Conclusion

This Appeal Brief is being filed via the USPTO Electronic Filing System (EFS). Appellant herewith petitions the Director of the USPTO to extend the time for filing this Appeal Brief for an appropriate length of time if necessary. Any fee due under 37 C.F.R. §41.37(a) and 37 U.S.C. § 1.17(c) is being paid via the USPTO Electronic Filing System (EFS).

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

/Kelly G. Hyndman 39,234/
Kelly G. Hyndman
Registration No. 39,234

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE
23373
CUSTOMER NUMBER

Date: February 4, 2008

CLAIMS APPENDIX:

CLAIMS 1-12 ON APPEAL:

1. (previously presented): A method for allocating network resources by just-in-time modulation of quality of service (QoS), comprising:

receiving a user profile from a client terminal, said user profile comprising aggregated user behavior information recorded at said client terminal;

receiving QoS demands from said client terminal, said QoS demands determined based on said user profile;

allocating network resources to said client terminal based on said QoS demands.

2. (previously presented): The method according to claim 1, wherein the method is performed according to QoS user preferences.

3. (previously presented): The method according to claim 2, wherein said QoS user preferences specify a QoS demanding strategy.

4. (previously presented): The method according to claim 1, wherein said OoS demands are predicted by a neural network.

5. (previously presented): The method according to claim 1, further comprising coordinating concurrent QoS demands of a manifold of users.

6. (previously presented): A telecommunication network, comprising:

a client terminal and a scheduler server, said client terminal comprising communication means for requiring and using network resources and quality of service (QoS) demands, said scheduler server comprising scheduling or dispatching means allocating network resources based on QoS demands;

wherein the client terminal further comprises acquiring means for recording events of a user as user-behavior and aggregation means for aggregating user-behavior in a QoS user profile;

wherein the communication means comprises demanding means for demanding predicted quality of service (QoS) demands based on service-usage and said user-behavior; and

wherein said scheduling or dispatching means comprises coordinating means for coordinating concurrent QoS demands of a manifold of users and evaluation and balancing means for evaluating QoS demands and balancing QoS grants based on QoS user profiles comprising aggregated service-usage and user-behavior received from a client terminal.

7. (previously presented): A client terminal comprising:

communication means for requiring and using network resources and quality of service (QoS) demands;

wherein the client terminal further comprises acquiring means for recording events of a user as user-behavior and aggregation means for aggregating user-behavior in a QoS user profile; and

wherein the communication means comprises demanding means for demanding predicted QoS demands based on service-usage and said user-behavior.

8. (previously presented): The client terminal according to claim 7, further comprising further communication means for providing the QoS user profiles to a scheduler server.

9. (previously presented): A scheduler server comprising:

scheduling or dispatching means for allocating network resources based on QoS demands, wherein said scheduling or dispatching means comprises coordinating means for coordinating concurrent QoS demands of a manifold of users and evaluation and balancing means for evaluating QoS demands and balancing QoS grants based on QoS user profiles comprising aggregated service-usage and user-behavior received from a client terminal.

10. (previously presented): A computer software product for allocating network resources by just-in-time modulation of quality of service (QoS), the computer software product comprising computer-executable instructions stored on a physical computer-readable medium, said instructions for performing the method according to claim 1.

11. (previously presented): The method according to claim 4, wherein said prediction is based on said aggregated service usage and user behavior information recorded at said client terminal.

12. (previously presented): The method according to claim 1, wherein coordinating concurrent QoS demands of a manifold of users comprises evaluating QoS demands of a manifold of users, and balancing QoS grants based on QoS user profiles of said manifold of users.

EVIDENCE APPENDIX:

Pursuant to 37 C.F.R. § 41.37(c)(1)(ix), submitted herewith are copies of any evidence submitted pursuant to 37 C.F.R. §§ 1.130, 1.131, or 1.132 or any other evidence entered by the Examiner and relied upon by Appellant in the appeal.

None.

RELATED PROCEEDINGS APPENDIX:

Submitted herewith are copies of decisions rendered by a court or the Board in any proceeding identified about in Section II pursuant to 37 C.F.R. § 41.37(c)(1)(ii).

None.

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SUBMISSION OF APPEAL BRIEF

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Sir:

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/Kelly G. Hyndman 39,234/
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